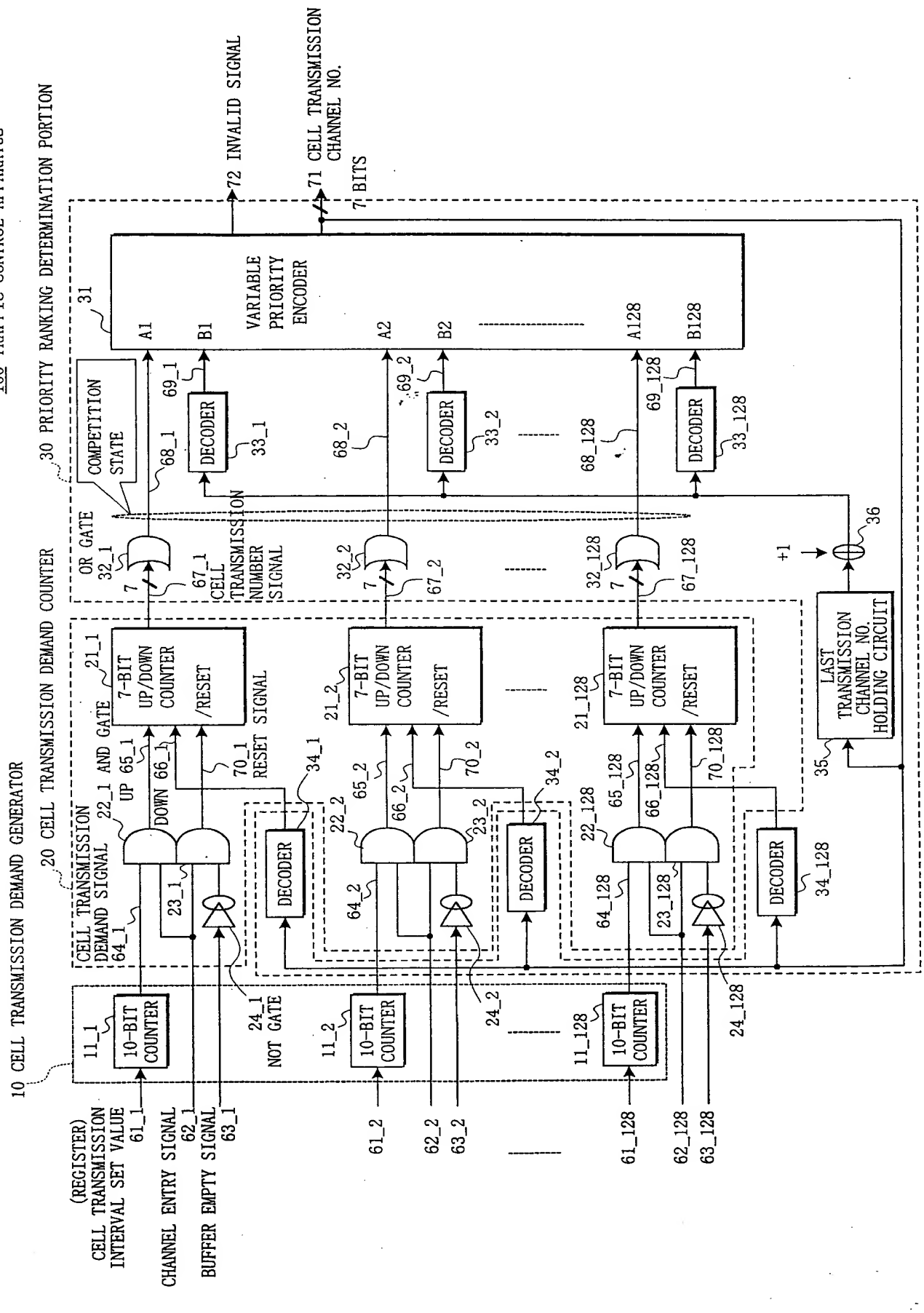
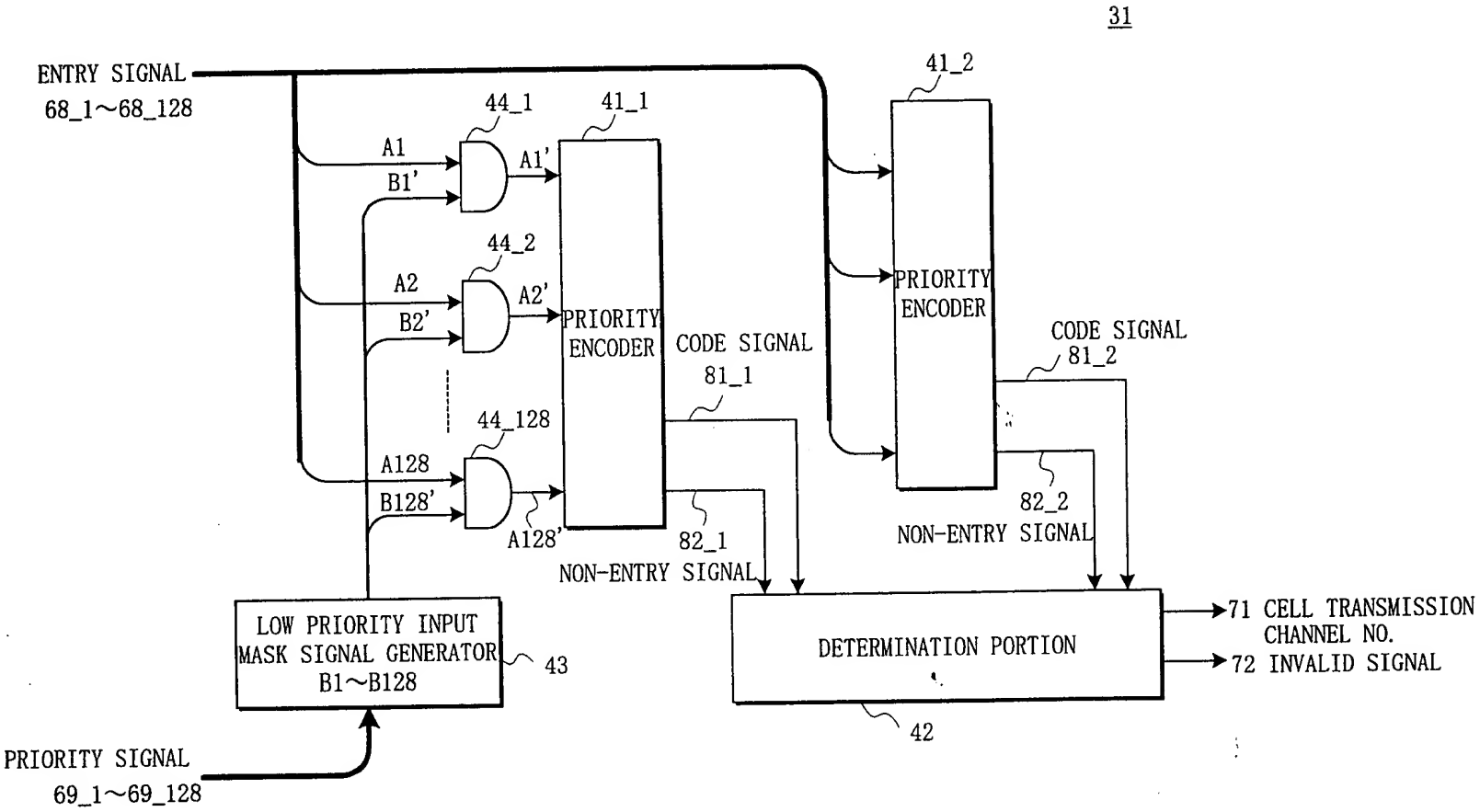
FG65 (1)

FIG. 1


100 TRAFFIC CONTROL APPARATUS
10 CELL TRANSMISSION DEMAND GENERATOR
20 CELL TRANSMISSION DEMAND COUNTER
30 PRIORITY RANKING DETERMINATION PORTION
(REGISTER) CELL TRANSMISSION INTERVAL SET VALUE
CHANNEL ENTRY SIGNAL
BUFFER EMPTY SIGNAL
10-BIT COUNTER
NOT GATE
CELL TRANSMISSION DEMAND SIGNAL
AND GATE
UP
DOWN
7-BIT UP/DOWN COUNTER
/RESET
RESET SIGNAL
DECODER
OR GATE
CELL TRANSMISSION NUMBER SIGNAL
COMPETITION STATE
VARIABLE PRIORITY ENCODER
72 INVALID SIGNAL
71 CELL TRANSMISSION CHANNEL NO.
7 BITS
LAST TRANSMISSION CHANNEL NO. HOLDING CIRCUIT
+1

EP 0 278 760

FIG. 2



JP02789760

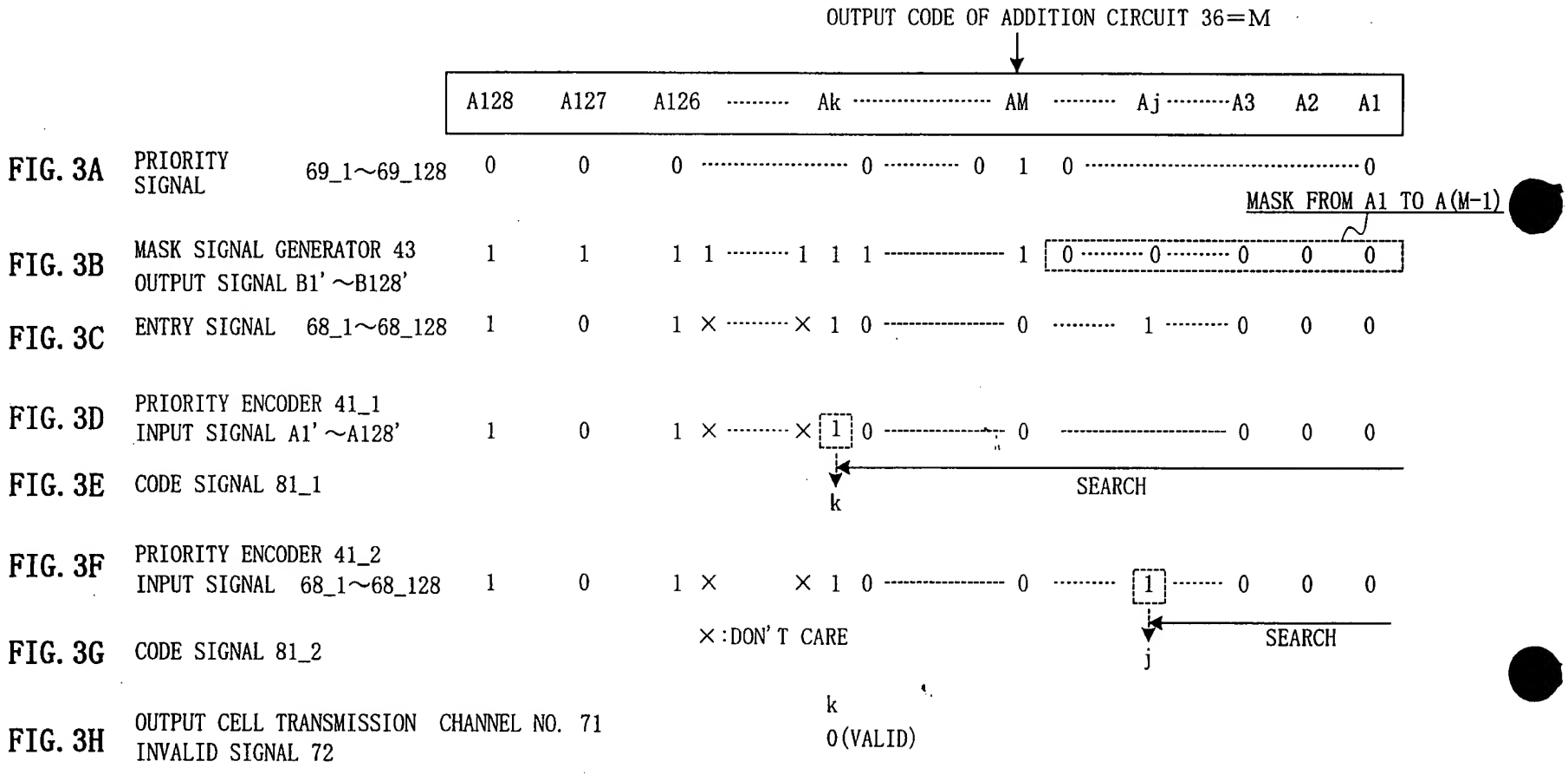
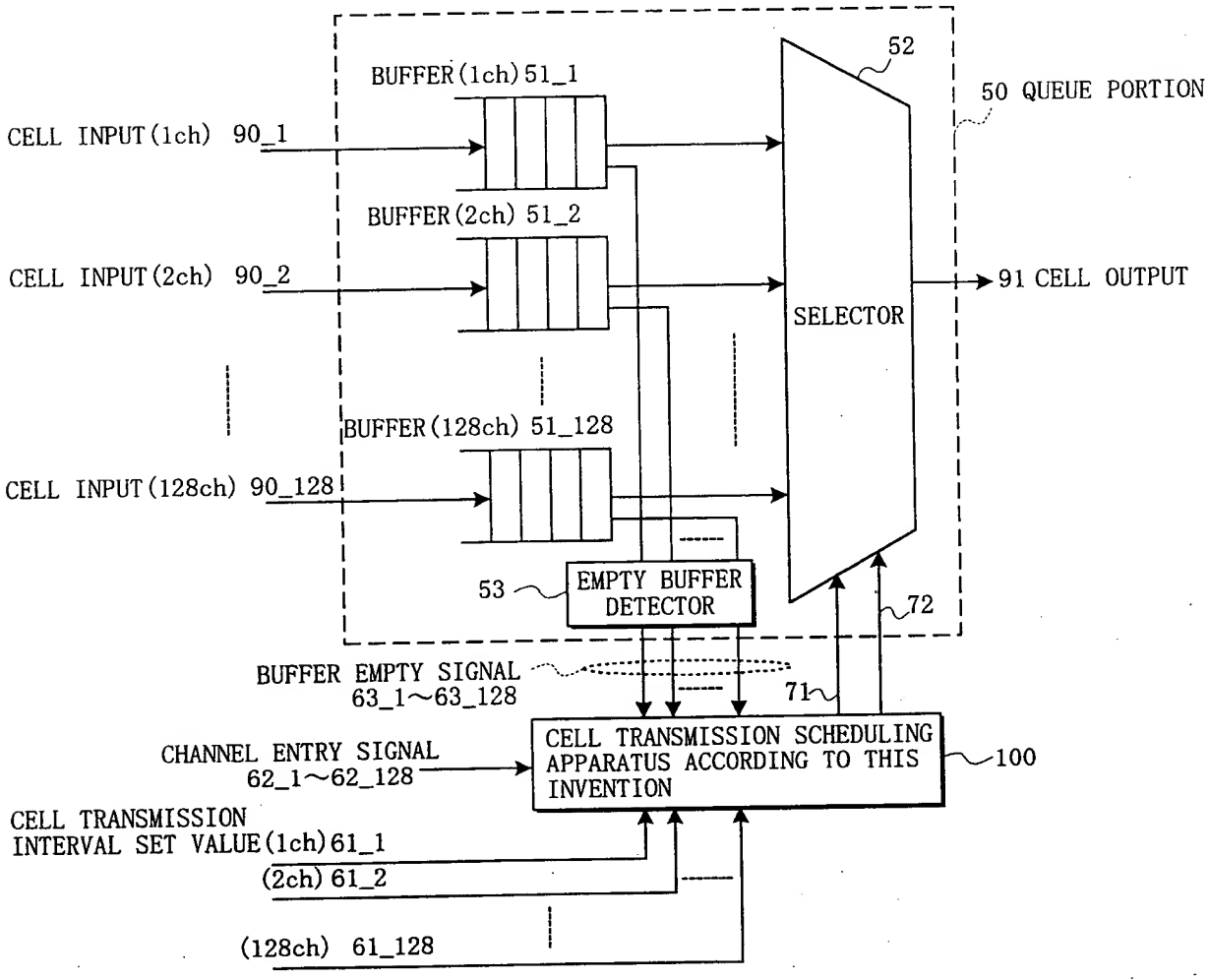

OUTPUT CODE OF ADDITION CIRCUIT 36=M
A128 A127 A126 ····· Ak ····· AM ····· Aj ·····A3 A2 A1
FIG. 3A PRIORITY SIGNAL 69_1~69_128 0 0 0 ····· 0 ····· 0 1 0 ····· 0
MASK FROM A1 TO A(M-1)
FIG. 3B MASK SIGNAL GENERATOR 43 OUTPUT SIGNAL B1'~B128' 1 1 1 1 ····· 1 1 1 ····· 1 0 ····· 0 ····· 0 0 0
FIG. 3C ENTRY SIGNAL 68_1~68_128 1 0 1 × ····· × 1 0 ····· 0 ····· 1 ····· 0 0 0
FIG. 3D PRIORITY ENCODER 41_1 INPUT SIGNAL A1'~A128' 1 0 1 × ····· × 1 0 ····· 0 ····· 0 0 0
FIG. 3E CODE SIGNAL 81_1
k
SEARCH
FIG. 3F PRIORITY ENCODER 41_2 INPUT SIGNAL 68_1~68_128 1 0 1 × × 1 0 ····· 0 ····· 1 ····· 0 0 0
×:DON'T CARE
FIG. 3G CODE SIGNAL 81_2
j
SEARCH
k
FIG. 3H OUTPUT CELL TRANSMISSION CHANNEL NO. 71 INVALID SIGNAL 72
0(VALID)

FIG. 4

INPUT SIGNAL				OUTPUT SIGNAL	
CODE SIGNAL 81_1	NON-ENTRY SIGNAL 82_1	CODE SIGNAL 81_2	NON-ENTRY SIGNAL 82_2	CHANNEL NO. 71	INVALID SIGNAL 72
×	INVALID	×	INVALID	×	INVALID
k	VALID	×	INVALID	k	VALID
×	INVALID	j	VALID	j	VALID
k	VALID	j	VALID	k	VALID

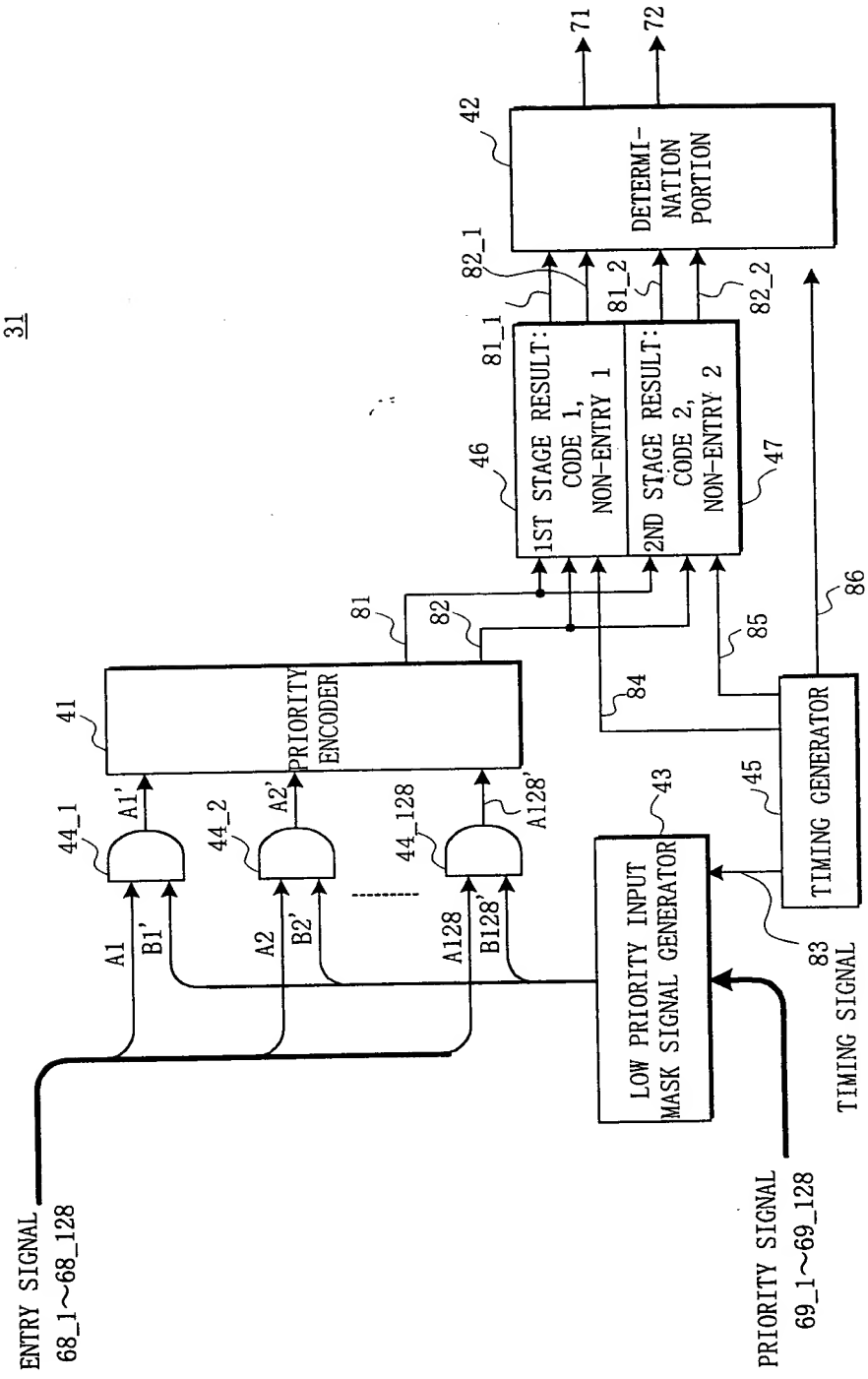
×:DON'T CARE

FIG. 6



EP 0 624 850 A2

FIG. 5



CASE OF CHANNEL NUMBER N=4

FIG. 7A CELL TRANSMISSION TIMING

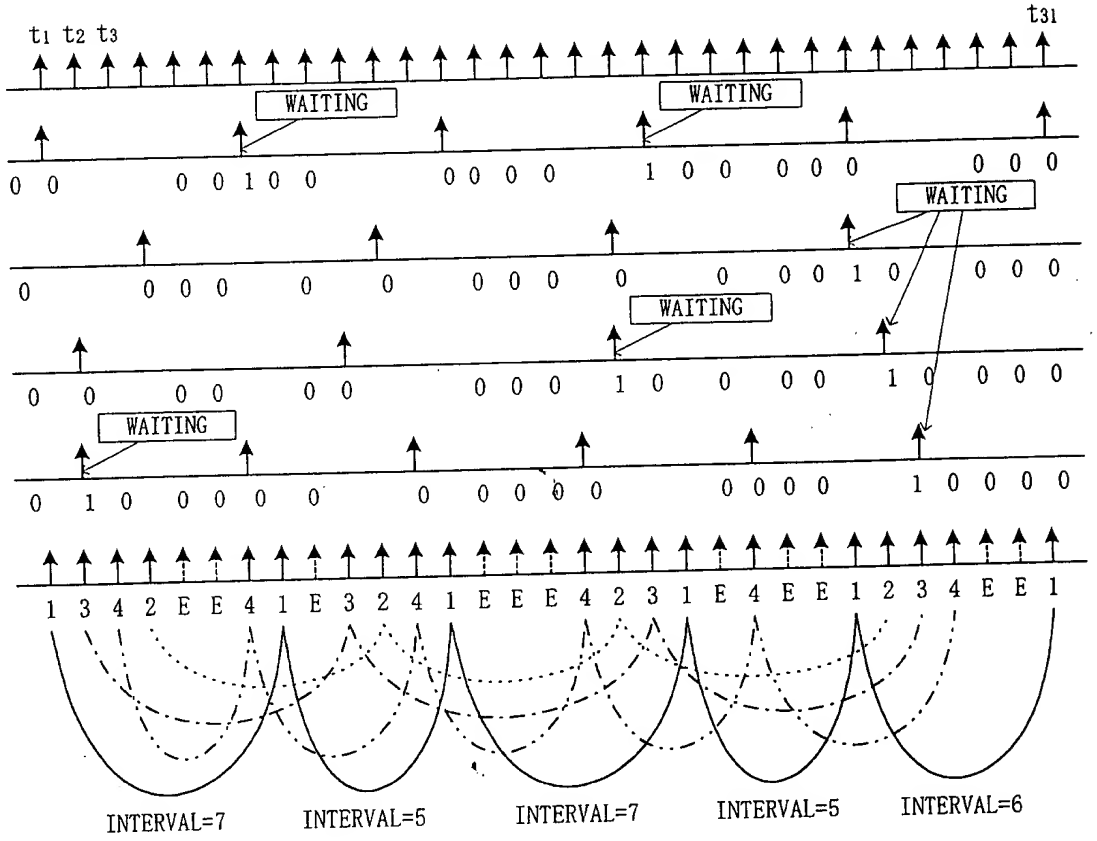
FIG. 7B ch1:CELL TRANSMISSION INTERVAL 6
CELL TRANSMISSION DEMAND SIGNAL 64_1
CELL TRANSMISSION NUMBER SIGNAL 67_1

FIG. 7C ch2:CELL TRANSMISSION INTERVAL 7
CELL TRANSMISSION DEMAND SIGNAL 64_2
CELL TRANSMISSION NUMBER SIGNAL 67_2

FIG. 7D ch3:CELL TRANSMISSION INTERVAL 8
CELL TRANSMISSION DEMAND SIGNAL 64_3
CELL TRANSMISSION NUMBER SIGNAL 67_3

FIG. 7E ch4:CELL TRANSMISSION INTERVAL 5
CELL TRANSMISSION DEMAND SIGNAL 64_4
CELL TRANSMISSION NUMBER SIGNAL 67_4

FIG. 7F CELL TRANSMISSION TIMING
CELL TRANSMISSION CHANNEL NO. 71



(ch1'S AVERAGE TRANSMISSION INTERVAL BETWEEN t1 AND t31=6)

E:EMPTY

FOR 2.0" 09768760

CASE OF CHANNEL NUMBER N=5

FIG. 8A CELL TRANSMISSION TIMING

FIG. 8B ch1:CELL TRANSMISSION INTERVAL 2
CELL TRANSMISSION DEMAND SIGNAL 64_1
CELL TRANSMISSION NUMBER SIGNAL 67_1

FIG. 8C ch2:CELL TRANSMISSION INTERVAL 7
CELL TRANSMISSION DEMAND SIGNAL 64_2
CELL TRANSMISSION NUMBER SIGNAL 67_2

FIG. 8D ch3:CELL TRANSMISSION INTERVAL 8
CELL TRANSMISSION DEMAND SIGNAL 64_3
CELL TRANSMISSION NUMBER SIGNAL 67_3

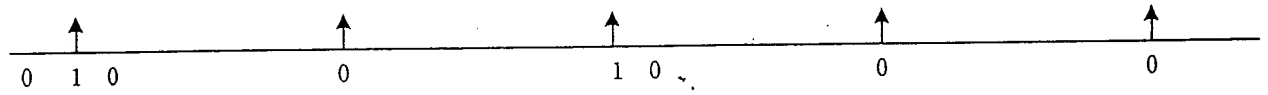


FIG. 8E ch4:CELL TRANSMISSION INTERVAL 5
CELL TRANSMISSION DEMAND SIGNAL 64_4
CELL TRANSMISSION NUMBER SIGNAL 67_4

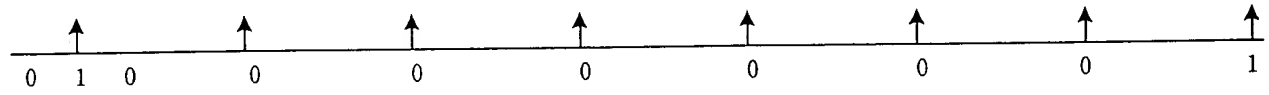
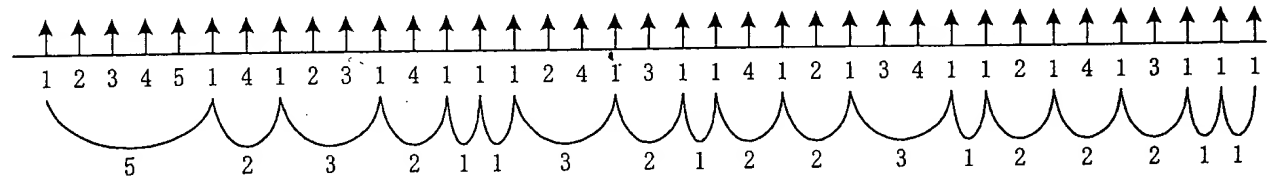


FIG. 8F ch5:CELL TRANSMISSION INTERVAL 40
CELL TRANSMISSION DEMAND SIGNAL 64_5
CELL TRANSMISSION NUMBER SIGNAL 67_5

FIG. 8G CELL TRANSMISSION TIMING
CELL TRANSMISSION CHANNEL NO. 71



ch1'S CELL TRANSMISSION INTERVAL
(AVERAGE TRANSMISSION INTERVAL BETWEEN t1 AND t37=2)